Claims

1. Refrigerator comprising at least one compartment to be cooled and a refrigeration apparatus with an evaporator, which evaporator is arranged in heat conducting contact with a heat exchanger, **characterized by**

an essentially enclosed chamber, in which chamber the heat exchanger is arranged and which chamber communicates with the compartment through an inlet port and an outlet port of the chamber, for allowing air to circulate from the compartment through the inlet port into the chamber and trough the outlet port back to the compartment, and

means for preventing air to pass by self-circulation from the chamber, through the inlet port and/or outlet port.

2. Refrigerator according to claim 1, wherein the means for preventing self-circulation from the chamber comprise a section of the inlet port and/or the outlet port, which section is arranged at a certain vertical level in relation to the chamber, which level is chosen not to allow air to pass from the chamber through said section by self-circulation caused by a difference in density of the gas inside and outside the chamber.

3. Refrigerator according to claim 2, wherein a section of the inlet and/or outlet port is arranged in level with or above an upper portion of the chamber.

4. Refrigerator according to claim 2 or 3, wherein a section of the inlet and/or outlet port is arranged in level with or below a lower portion of the chamber.

5. Refrigerator according to any of claims 1, wherein said chamber is arranged inside the compartment.

6. Refrigerator according claim 1, wherein said chamber communicates with a first compartment through the inlet and outlet ports and is arranged inside a second compartment, which is arranged essentially not to communicate with the first compartment.

7. Refrigerator according to claim 1, wherein heating means are provided for defrosting said heat exchanger.

8. Refrigerator according to claim 1, wherein a fan is provided for forced circulation of air from the compartment through the inlet port into the chamber and trough the outlet port back to the compartment.

9. Refrigerator according to claim 8, wherein the fan is arranged for controlling the forced circulation flow and thereby regulating the temperature in the compartment.

10. Refrigerator according to claim 9, wherein the fan is a variable speed fan and means are provided for controlling the speed of the fan in relation to the temperature in the compartment.

11. Refrigerator according to claim 1, wherein the chamber is heat insulated from a compartment in which compartment the chamber is positioned.

12. Method for controlling the temperature in a refrigerator, which refrigerator comprises a refrigeration apparatus, a first compartment with a first heat exchanger and a second compartment with a second heat exchanger, the first and second heat exchanger being arranged to transfer heat from the respective compartment to the refrigeration apparatus **characterized in that**
the temperature in the first compartment is controlled by regulating the refrigerating effect of the refrigeration

apparatus and that
the temperature in the second compartment is controlled by regulating the air circulation flow in the second compartment.

13. Method according to claim 11, wherein the air flow in the second compartment is conducted from the second compartment through an inlet port of a chamber and through an outlet port of the chamber back to the second compartment and; wherein the air flow is forced by a fan to pass a section of the inlet port and/or outlet port, which section is arranged at a certain vertical level in relation to the chamber for preventing self-circulation of air from the chamber through the section to the second compartment.